NEWS 16 AUG 09

## Connecting via Winsock to STN

```
Welcome to STN International! Enter x:x
LOGINID:ssspta1201txs
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
* * * * * * * * *
                     Welcome to STN International
* *
NEWS 1
                  Web Page URLs for STN Seminar Schedule - N. America
NEWS 2
                  "Ask CAS" for self-help around the clock
NEWS 3 FEB 27
                 New STN AnaVist pricing effective March 1, 2006
NEWS 4 APR 04
                 STN AnaVist $500 visualization usage credit offered
         MAY 10
 NEWS
                 CA/CAplus enhanced with 1900-1906 U.S. patent
records
NEWS 6 MAY 11
                 KOREAPAT updates resume
                 Derwent World Patents Index to be reloaded and
 NEWS
         MAY 19
enhanced
 NEWS
         MAY 30
                  IPC 8 Rolled-up Core codes added to CA/CAplus and
                  USPATFULL/USPAT2
         MAY 30
 NEWS
                 The F-Term thesaurus is now available in CA/CAplus
 NEWS 10
         JUN 02
                  The first reclassification of IPC codes now
complete in
                  INPADOC
 NEWS 11 JUN 26
                 TULSA/TULSA2 reloaded and enhanced with new search
and
                  and display fields
                  Price changes in full-text patent databases EPFULL
         JUN 28
 NEWS 12
and PCTFULL
 NEWS 13
         JUl 11
                 CHEMSAFE reloaded and enhanced
NEWS 14
         JUl 14 FSTA enhanced with Japanese patents
```

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

NEWS 15 JUL 19 Coverage of Research Disclosure reinstated in DWPI

INSPEC enhanced with 1898-1968 archive

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation
of IPC 8
NEWS X25 X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 14:45:50 ON 10 AUG 2006

=> file reg COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FILE 'REGISTRY' ENTERED AT 14:46:05 ON 10 AUG 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2 DICTIONARY FILE UPDATES: 9 AUG 2006 HIGHEST RN 900096-56-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

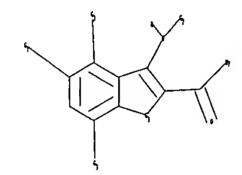
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>

Uploading C:\Program Files\Stnexp\Queries\10501689.str



```
chain nodes :
11  12  13  14  16  17  19  20  22
ring nodes :
1  2  3  4  5  6  7  8  9
chain bonds :
1-19  3-22  4-20  7-13  8-11  11-12  11-17  13-14  13-16
ring bonds :
1-2  1-6  2-3  3-4  4-5  5-6  5-7  6-9  7-8  8-9
exact/norm bonds :
1-19  3-22  4-20  5-7  6-9  7-8  7-13  8-9  8-11  11-12  11-17  13-14
13-16
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6
isolated ring systems :
containing 1 :
```

. 10/501,689

G1:0,S

G2:C, H, Ak

G3:H,OH,CN,X,Ak,O

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 11:CLASS 12:CLASS 13:CLASS 14:CLASS 16:CLASS 17:Atom 19:CLASS 20:CLASS 22:CLASS

L1 STRUCTURE UPLOADED

=> s 11

SAMPLE SEARCH INITIATED 14:46:30 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 639 TO ITERATE

100.0% PROCESSED 639 ITERATIONS 28

**ANSWERS** 

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 11264 TO 14296

PROJECTED ANSWERS: 243 TO 877

L2 28 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 14:46:36 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 12649 TO ITERATE

100.0% PROCESSED 12649 ITERATIONS 567

**ANSWERS** 

SEARCH TIME: 00.00.01

L3 567 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 166.94 167.15

FILE 'CAPLUS' ENTERED AT 14:46:45 ON 10 AUG 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing

of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 10 Aug 2006 VOL 145 ISS 7 FILE LAST UPDATED: 9 Aug 2006 (20060809/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.

They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 13

L4 12 L3

=> d 14 ibib hitstr abs 1-12

L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:588929 CAPLUS

DOCUMENT NUMBER: 143:115430

TITLE: Preparation of aroylfurans and

aroylthiophenes for

treating neoplastic and autoimmune diseases INVENTOR(S): Eberle, Martin; Bachmann, Felix; Strebel,

Alessandro;

Roy, Subho; Saha, Goutam; Sadhukhan, Subir

Kumar;

Saxena, Rohit; Srivastava, Sudhir

PATENT ASSIGNEE(S): Aponetics A.-G., Switz. SOURCE: PCT Int. Appl., 180 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT 1		KIND		DATE		APPLICATION NO.							
		_											
WO 2005061476 20041221				A2		20050707		WO 2					
WO 2005					2006								
CA, CH,	AE, AG	, AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,
GB, GD,	CN, CO	, CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,
GB, GD,	GE, GH	, GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,
KZ, LC,	LK, LR	. LS.	T.T.	T <sub>1</sub> U <sub>2</sub>	T <sub>1</sub> V <sub>2</sub>	MA.	MD.	MG.	MK.	MN -	MW.	MX .	M7
NA, NI,								·	·	·			·
SL, SY,	NO, NZ	, OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,
ZM, ZW, SM	TJ, TM	, TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,
RW:	BW, GH	, GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,
ZW, AM,	AZ, BY	, KG,	KZ,	MD.	RU.	TJ.	TM,	AT.	BE.	BG.	CH.	CY.	CZ.
DE, DK,													·
PL, PT,	EE, ES	, F1,	rk,	GB,	GR,	HU,	IE,	15,	IT,	ьт,	LU,	MC,	NL,
GW, ML,	RO, SE	, SI,	SK,	TR,	BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,
	MR, NE	•	•										
CA 2545 20041221	821		AA		2005	0707		CA 2	004-	2545	821		
PRIORITY APP: 20031222	LN. INF	0.:						EP 2	003-	4059	11	Ž	P
								EP 2	003-	4059	12	Ž	P
20031222								EP 2	004-	4055	17	Ž	Ż.
20040819								io з	004	rne o	622	τ	.7
20041221								WO 2	004-	EP33	022	,	Ŋ
OTHER SOURCE IT 857841-			•										
857842-	17-2P 8	57842	-18-	3P 8	35784	2-19	-4P						
857842-1 857842-1							_						
RL: PAC	(Pharm	acolo	gica	l ac	ctivi	ty);	SPN	(Sy	nthe	tic	prep	arat:	ion);

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(preparation of aroylfurans and aroylthiophenes for treating neoplastic and

autoimmune diseases)

RN 857841-76-0 CAPLUS

CN Methanone, (3-amino-5-chloro-2-benzofuranyl)[2-(4-morpholinyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 857842-15-0 CAPLUS

CN Methanone,

(3-amino-5-chloro-2-benzofuranyl)[2-(ethylamino)-3-pyridinyl]- (9CI) (CA INDEX NAME).

RN 857842-16-1 CAPLUS

CN Methanone, (3-amino-5-chloro-2-benzofuranyl)[2-(dimethylamino)-3-pyridinyl]- (9CI) (CA INDEX NAME)

$$O$$
 $NMe_2$ 
 $NH_2$ 

RN 857842-17-2 CAPLUS
CN Methanone,
(3-amino-5-chloro-2-benzofuranyl)(2-ethoxy-3-pyridinyl)- (9CI)
(CA INDEX NAME)

RN 857842-18-3 CAPLUS

CN Methanone,

(3-amino-5-chloro-2-benzofuranyl)[2-(1-pyrrolidinyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 857842-19-4 CAPLUS

CN Methanone,

(3-amino-5-chloro-2-benzofuranyl)[2-(ethylmethylamino)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 857842-20-7 CAPLUS

CN Methanone,

(3-amino-5-chloro-2-benzofuranyl) [2-(diethylamino)-3-pyridinyl](9CI) (CA INDEX NAME)

RN 857842-21-8 CAPLUS

CN Methanone, (3-amino-5-chloro-2-benzofuranyl)[2-(1-piperidinyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 857842-22-9 CAPLUS

CN Methanone, (3-amino-5-chloro-2-benzofuranyl)[2-(2,6-dimethyl-4-morpholinyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 857842-23-0 CAPLUS

CN Methanone,

(3-amino-5-chloro-2-benzofuranyl)[2-(hexahydro-1H-1,4-diazepin-1-yl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

RN 857842-24-1 CAPLUS

CN Methanone,

(3-amino-5-chloro-2-benzofuranyl)[2-(4-methyl-1-piperazinyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 857842-26-3 CAPLUS

CN Methanone,

(3-amino-5-chloro-2-benzofuranyl)[2-(4-hydroxy-1-piperidinyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

IT 857841-65-7P 857842-90-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT

(Reactant or reagent)

(preparation of aroylfurans and aroylthiophenes for treating neoplastic and  $% \left( 1\right) =\left( 1\right) +\left( 1\right)$ 

autoimmune diseases)

RN 857841-65-7 CAPLUS

CN Methanone,

(3-amino-5-chloro-2-benzofuranyl)(2-chloro-3-pyridinyl)- (9CI) (CA INDEX NAME)

RN 857842-90-1 CAPLUS CN Methanone, (3-amino-5-chloro-2-benzofuranyl)(2-bromo-3-pyridinyl)- (9CI) (CA INDEX NAME)

GI

AB The invention relates to compds. I and II [ring A = = Ph, pyridine,

pyrimidine or pyrazine ring; W and X = C, N; Y = O, S; RO = alkoxymethyl,

cyclohexyl, Ph, etc.; Rx = C(0)R1 or cyano; R1 = H, (un) substituted OH or

(un)substituted NH2; R6 = H, alkyl, haloalkyl, etc.; R8 = H,
alkyl,

alkoxy, halo]. The invention further relates to methods of synthesis of

compds. I and II, to pharmaceutical compns. containing compds. I and II, to

the use of such compds. for the preparation of a pharmaceutical composition for the

treatment of neoplastic and autoimmune diseases, and to methods of

treatment of neoplastic and autoimmune diseases using compds. I and II or

of pharmaceutical compns. containing same. E.g., a multi-step synthesis of

III, starting from 2-benzyloxyacetophenone, was given. The exemplified

compds. I and II were tested in various cell lines (data given).

L4 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:502640 CAPLUS

DOCUMENT NUMBER: 143:172703

TITLE: Synthesis and conversion of 3-(2-

hydroxythiobenzamido)benzo[b]furans

AUTHOR(S): Briel, Detlef

CORPORATE SOURCE: Institute of Pharmacy, Faculty of

Biosciences,

Pharmacy, and Psychology, University of

Leipzig,

Leipzig, D-04103, Germany

SOURCE: Heterocycles (2005), 65(6), 1295-1309

CODEN: HTCYAM; ISSN: 0385-5414

PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 143:172703

IT 860801-63-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT

(Reactant or reagent)

(preparation of [(hydroxy)thiobenzamido]benzo[b]furan derivs.

via

O-alkylation, ring transformation and oxygen-sulfur exchange sequence

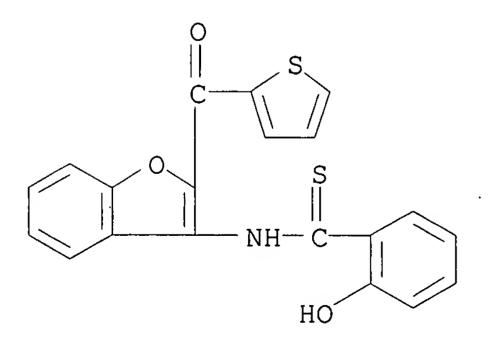
using

[(hydroxy)phenyl]-1,2,4-dithiazol-ylidene]-cyclohexadienone and acyl bromides as starting materials)

RN 860801-63-4 CAPLUS

CN Benzenecarbothioamide,

2-hydroxy-N-[2-(2-thienylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)



AB A simple method for the introduction of a 2-aroyl-3-benzofuranyl residue

at the nitrogen atom of 2-hydroxy-thiobenzamide is described. Thereby

N-(2-aroyl-3-benzofuranyl)-2-hydroxy-thiobenzamides were obtained which

undergo an oxygen-sulfur position exchange when they were heated in acetic

acid yielding the isomeric

N-(2-thioaroyl-3-benzofuranyl)-2-hydroxy-

benzamide derivs.

REFERENCE COUNT:

21 THERE ARE 21 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:260074 CAPLUS

DOCUMENT NUMBER:

142:316835

TITLE:

of

Preparation of thienopyrazoles as inhibitors

. . .

interleukin-2 inducible tyrosine kinase for

treating

diseases involving overproduction of Th2

cytokine like

asthma

INVENTOR(S):
Gillespy,

Jurcak, John Gerard; Barrague, Matthieu;

Timothy Alan; Edwards, Michael Louis;

Musick, Kwon

Yon; Weintraub, Philip Marvin; Du, Yan;

Dharanipragada, Ramalinga M.; Parkar, Ashfaq

Ahmed

PATENT ASSIGNEE(S):

Aventis Pharmaceuticals Inc., USA

SOURCE:

PCT Int. Appl., 171 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO. DATE	KIND	DATE	APPLICATION NO.
WO 2005026175 20040723	A1	20050324	WO 2004-US23814

```
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
         W:
CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW
             BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
         RW:
ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,
RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE,
             SN, TD, TG
     AU 2004272507
                          A1
                                 20050324
                                             AU 2004-272507
20040723
     CA 2538032
                                 20050324
                          AA
                                             CA 2004-2538032
20040723
     EP 1682553
                          A1
                                 20060726
                                             EP 2004-779049
20040723
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
         R:
MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
PL, SK, HR
     NO 2006001626
                                 20060410
                                             NO 2006-1626
                          Α
20060410
PRIORITY APPLN. INFO.:
                                             US 2003-501159P
                                                                  P
20030908
                                             WO 2004-US23814
                                                                  W
20040723
OTHER SOURCE(S):
                         MARPAT 142:316835
     848357-66-4P, [3-(2-Benzhydrylidenehydrazino)benzo[b]thiophen-2-
TI
yl][1-(benzyloxymethyl)-6-[3-(piperidin-1-yl)propoxy]-1H-benzimidazol-
2-
     yl]methanone
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT
     (Reactant or reagent)
        (preparation of thienopyrazoles as inhibitors of
interleukin-2 inducible
```

tyrosine kinase for treating diseases involving overprodn. of Th2

cytokine like asthma)

RN 848357-66-4 CAPLUS

CN Methanone, diphenyl-, [2-[[1-[(phenylmethoxy)methyl]-6-[3-(1-

piperidinyl)propoxy]-1H-benzimidazol-2-yl]carbonyl]benzo[b]thien-3yl]hydrazone (9CI) (CA INDEX NAME)

GI

$$R^{5}$$
 $R^{6}$ 
 $R^{7}$ 
 $R^{8}$ 
 $R^{8}$ 
 $R^{1}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{3}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{6}$ 
 $R^{6}$ 
 $R^{6}$ 
 $R^{7}$ 
 $R^{6}$ 
 $R^{7}$ 
 $R^{8}$ 

AB This invention relates to thienopyrazoles (shown as I; variables defined

below; e.g. 2-(1H-thieno[3,2-c]pyrazol-3-yl)-1H-benzimidazole), their

preparation, pharmaceutical compns. comprising these compds., and their

pharmaceutical uses in the treatment of disease states capable of being

modulated by the inhibition of the protein kinases, in particular

10/501,689 interleukin-2 inducible tyrosine kinase (ITK). IC50 values for inhibition of ITK and IL-4 release are tabulated for 26 examples of I. For I: X is N, or C-R7; X1 is N, or C-R1; R1, R2, R3, R4, R5 and R6 = H, or (un) substituted acyl, alkyl, alkoxy, acylamino, alkenyl, alkoxyalkyl, or (Y1)(Y2)NC(O)-, (Y1)(Y2)N-, or alkoxycarbonyl, alkylsulfinyl, alkylsulfonyl, alkylsulfonylcarbamoyl, alkylthio, alkynyl, aroyl, aryl, aroylamino, arylalkyl, arylalkoxy, arylalkyloxyalkyl, arylalkyloxycarbonyl, aryloxyalkyl, arylalkylthio, aryloxy, aryloxycarbonyl, arylsulfinyl, arylsulfonyl, arylsulfonylcarbamoyl, arylthio, cycloalkenyl, cycloalkoxyalkyl, cycloalkyl, cycloalkylalkyl, cycloalkyloxy, heteroaroyl, heteroaroylamino, heteroarylalkyl, heteroarylalkoxy, heteroarylalkyloxyalkyl, heteroaryloxy, heteroaryloxyalkyl, heterocycloalkyl, heteroarylsulfonylcarbamoyl, heterocycloalkylalkyl, heterocycloalkyloxy, heterocycloalkyloxyalkyl, or halo, hydroxy, trifluoromethyl, nitro, (un) substituted hydroxyalkyl, carboxy, or cyano; or R5 and R6, together with the two double-bonded carbons to which they are attached, form an (un) substituted benzene ring. R7 is H, halo or (un) substituted alkyl; and Y1 and Y2 = H, (un) substituted alkyl, (un) substituted aryl, or (un) substituted heteroaryl, or Y1 and Y2, together with the N to which they are attached form an (un) substituted heteroaryl group, or an (un) substituted heterocycloalkyl group.

Although

the methods of preparation are not claimed, >70 example prepns. are included.

For example, 2-(1H-thieno[3,2-c]pyrazol-3-yl)-1H-benzimidazole was prepared

in 5 steps starting from 3-bromothiophene-2-carboxylic acid and involving

intermediates 3-bromothiophene-2-carboxylic acid N-methoxy-N-methylamide,

1-(benzyloxymethyl)-1H-benzimidazole,

[1-(benzyloxymethyl)-1H-benzimidazol-

2-yl](3-bromothiophen-2-yl)methanone and [3-(2-

benzhydrylidenehydrazino)thiophen-2-yl][1-(benzyloxymethyl)-1H-benzimidazol-2-yl]methanone.

REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE

FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L4 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:696882 CAPLUS

DOCUMENT NUMBER:

139:230615

TITLE:

Preparation of benzofurans and

benzothiophenes useful

in the treatment of hyperproliferative

disorders

INVENTOR(S):

Zhang, Chengzhi; Burke, Michael; Chen, Zhi;

Dumas,

Jacques; Fan, Dongping; Fan, Jianmei;

Hatoum-Mokdad,

Holia; Jones, Benjamin D.; Ladouceur,

Gaetan; Lee,

Wendy; Phillips, Barton

PATENT ASSIGNEE(S):

Bayer Pharmaceuticals Corporation, USA

SOURCE:

PCT Int. Appl., 138 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. DATE					KIND		DATE			APPLICATION NO.							
WO 2003072561 20030221					A1 20030904			0904	WO 2003-US5396								
	CN,	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	
,	GH,		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	
	LR,		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	
	•		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	
·	PH,		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	
TT,	TZ,		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW					
AZ,	BY,	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	

```
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK,
TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG
     CA 2474511
                                 20030904
                          AA
                                             CA 2003-2474511
20030221
     AU 2003213219
                                 20030909
                          Α1
                                             AU 2003-213219
20030221
     EP 1487813
                                 20041222
                          Α1
                                             EP 2003-709265
20030221
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
         R:
MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK
     CN 1639146
                                 20050713
                                             CN 2003-804436
                          Α
20030221
     CN 1639145
                                 20050713
                                             CN 2003-804442
                          Α
20030221
     JP 2006507215
                          T2
                                 20060302
                                             JP 2003-571267
20030221
     BR 2003007905
                                 20060404
                                             BR 2003-7905
                          Α
20030221
     ZA 2004007482
                                 20050919
                          Α
                                             ZA 2004-7482
20040917
     NO 2004003952
                          Α
                                 20041022
                                             NO 2004-3952
20040921
PRIORITY APPLN. INFO.:
                                             US 2002-359011P
                                                                  Ρ
20020222
                                             US 2002-399886P
                                                                  P
20020731
                                             WO 2003-US5396
20030221
OTHER SOURCE(S): MARPAT 139:230615
     594811-07-1P 594811-12-8P 594811-21-9P
IT
     594811-31-1P 594811-43-5P 594811-48-0P
     594811-49-1P 594811-50-4P 594811-53-7P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation);
THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation);
USES
     (Uses)
        (antitumor agent; preparation of benzofurans and
benzothiophenes for
        treatment of hyper-proliferative disorders)
     594811-07-1 CAPLUS
RN
```

CN Methanone, (3-amino-6-phenyl-2-benzofuranyl)[4-(1-methylethyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 594811-12-8 CAPLUS

CN Methanone,

[3-amino-6-(4-methyl-3-thienyl)-2-benzofuranyl]-1,3-benzodioxol-4-yl-(9CI) (CA INDEX NAME)

RN 594811-21-9 CAPLUS

CN Methanone,

[3-amino-6-(4-methoxyphenyl)-2-benzofuranyl](4-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)

RN 594811-31-1 CAPLUS

CN Methanone,

[3-amino-6-(3-fluorophenyl)-2-benzofuranyl](4-methyl-3-

pyridinyl) - (9CI) (CA INDEX NAME)

RN 594811-43-5 CAPLUS

CN Methanone,

[3-amino-6-(3-aminophenyl)-2-benzofuranyl][4-(trifluoromethyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 594811-48-0 CAPLUS

CN Methanone,

[3-amino-6-(3-furanyl)-2-benzofuranyl][4-(trifluoromethyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 594811-49-1 CAPLUS

CN Methanone,

[3-amino-6-(2-thienyl)-2-benzofuranyl][4-(trifluoromethyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 594811-50-4 CAPLUS

CN Methanone,

[3-amino-6-(3-thienyl)-2-benzofuranyl][4-(trifluoromethyl)-3-pyridinyl]- (9CI) (CA INDEX NAME)

RN 594811-53-7 CAPLUS

CN Methanone, [3-amino-6-(3-nitrophenyl)-2-benzofuranyl](2-methyl-3-pyridinyl)- (9CI) (CA INDEX NAME)

IT 594812-60-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation);

THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation);

USES

(Uses)

(preparation of benzofurans and benzothiophenes for treatment

of hyper-proliferative disorders)

RN 594812-60-9 CAPLUS

CN Methanone,

[3-amino-6-(1H-pyrrol-1-yl)-2-benzofuranyl]-1,3-benzodioxol-4-yl- (9CI) (CA INDEX NAME)

$$O$$
 $C$ 
 $N$ 
 $N$ 
 $N$ 

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [wherein X = O, S; R1 = H, alkyl, (CO) alkyl, benzoyl; R2 =

(un)substituted Ph, naphthyl, (un)substituted heterocyclyl; R3 =
H, OH,

OH, CN, alkyl, alkoxy, halo, haloalkyl and haloalkoxy; and their pharmaceutically acceptable salts or esters] were prepared as antitumor

agents for treatment of hyperproliferative disorders. For example, II was

prepared from 2-bromo-3'-methoxy-acetophenone by cyclocondensation with

acetamide at 110° for 40 h, demethylation in DCM at room temperature for  $% \left( 1,0\right) =0$ 

2 h, reaction with paraformaldehyde in CH3CN/TEA in the presence of MgCl2

at reflux for 17 h, reaction with nitroethane in AcOH/AcONa at reflux for

 $17\ \text{h,}$  and K2CO3-catalyzed cyclocondensation of the resultant nitrile with

2-methoxyphenacyl bromide in anhydrous DMF. III was prepared, in 28.2% yield, by Pd-cross coupling of (3-amino-6-iodo-1-benzothiophene-2-yl) (2,4dichlorophenyl) methanone with pyridine-3-boronic acid in 1,2-dimethoxyethane at 80° for 18 h. I showed a significant inhibition of tumor cell proliferation in the adherent tumor cell proliferation assay (no data). Thus, I and their formulations are useful as antitumor agents (no data). REFERENCE COUNT: THERE ARE 4 CITED REFERENCES AVAILABLE 4 FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L4ANSWER 5 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2000:824243 CAPLUS DOCUMENT NUMBER: 134:4854 TITLE: Preparation of oligohydroxyl substituted benzofuranylurea derivatives as phosphodiesterase IV inhibitors INVENTOR(S): Braunlich, Gabriele; Es-Sayed, Mazen; Fischer, Rudiger; Fugmann, Burkhard; Henning, Rolf; Schneider, Stephan; Sperzel, Michael; Schlemmer, KarlHeinz; Sturton, Graham; Fitzgerald, Mary; Briggs, Barbara; Concepcion, Arnel; Bullock, William PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany SOURCE: PCT Int. Appl., 95 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

DATE	PAT	PATENT NO.					D	DATE			APPLICATION NO.							
							_											
WO 2000069844 20000504						A1 20001123				1	WO 2000-EP4016							
CN, C	CR,	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,		

```
CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,
BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     GB 2350111
                                20001122
                                             GB 1999-11456
                          A1
19990517
PRIORITY APPLN. INFO.:
                                             GB 1999-11456
                                                                 Α
19990517
OTHER SOURCE(S):
                         MARPAT 134:4854
     308340-26-3P 308340-27-4P 308340-38-7P
IT
     308340-48-9P 308340-49-0P
     RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
     study, unclassified); SPN (Synthetic preparation); THU
(Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of oligohydroxyl substituted benzofuranylurea
derivs. as
        phosphodiesterase IV inhibitors)
     308340-26-3 CAPLUS
RN
CN
     Urea,
[6-(2,3-dihydroxypropoxy)-2-[(2,6-dimethyl-3-pyridinyl)carbonyl]-3-
     benzofuranyl] - (9CI) (CA INDEX NAME)
```

RN 308340-27-4 CAPLUS

CN Urea,

[6-[2,3-dihydroxy-2-(hydroxymethyl)propoxy]-2-[(2,6-dimethyl-3-pyridinyl)carbonyl]-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 308340-38-7 CAPLUS

CN Urea,

[2-[(2,6-dimethyl-3-pyridinyl)carbonyl]-6-[3-fluoro-2-hydroxy-2-(hydroxymethyl)propoxy]-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 308340-48-9 CAPLUS

CN Urea,

[2-[(5-chloro-2-thienyl)carbonyl]-6-(2,3-dihydroxypropoxy)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

HO- 
$$CH_2$$
-  $CH$ -  $CH_2$ -  $O$ 

NH-  $C$ -  $NH_2$ 

RN 308340-49-0 CAPLUS

CN Urea,

[2-[(2,5-dichloro-3-thienyl)carbonyl]-6-(2,3-dihydroxypropoxy)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

IT 308340-80-9P 308340-88-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation of oligohydroxyl substituted benzofuranylurea derivs. as

phosphodiesterase IV inhibitors)

RN 308340-80-9 CAPLUS

CN Urea,

RN 308340-88-7 CAPLUS

CN Urea,

[2-[(5-chloro-2-thienyl)carbonyl]-6-(2-propenyloxy)-3-benzofuranyl]-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{H}_2\text{C} = \text{CH} - \text{CH}_2 - \text{O} \\ \hline \\ \text{NH} - \text{C} - \text{NH}_2 \\ \end{array}$$

GΙ

AB The title compds. I [A and D including the double bond connecting them

together form a phenyl-, pyridyl-, pyrimidyl, pyridazinyl-, pyrazinyl- or

thienyl-ring, which is substituted by a group of OR5; R5 = straight-chain

or branched alkyl having 1 to 15 carbon atoms, which is substituted difold

to fivefold by hydroxyl or di-fold to fivefold by straight-chain or branched alkoxy having 1 to 6 carbon atoms and wherein alkyl is optionally substituted by 20 straight-chain or branched alkoxycarbonyl having 1 to 6 carbon atoms, halo, carboxyl, (C3-C8)-cycloalkyl or by Ph, which is optionally substituted monofold to fivefold by nitro, halo or Ph; E =oxygen or sulfur; R2, R3 = H, cycloalkyl, alkyl, etc. or R2NR3 = heterocycle; R4 = aryl, heterocycle] were prepared and their use in medicaments for the treatment of inflammatory processes is reported. E.g., 2-(2,4-dichlorobenzoyl)-6-(2,3-dihydroxy-1-propyloxy)-3ureidobenzofuran was prepared REFERENCE COUNT: THERE ARE 6 CITED REFERENCES AVAILABLE 6 FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L4ANSWER 6 OF 12 COPYRIGHT 2006 ACS on STN CAPLUS ACCESSION NUMBER: 2000:824241 CAPLUS DOCUMENT NUMBER: 134:4852 TITLE: Preparation of benzofuranylsulfonates as antiinflammatory agents INVENTOR(S): Braunlich, Gabriele; Es-Sayed, Mazen; Fischer, Rudiger; Fugmann, Burkhard; Henning, Rolf; Schneider, Stephan; Sperzel, Michael; Schlemmer, Karl-Heinz; Sturton, Graham; Fitzgerald, Mary; Briggs, Barbara; Concepcion, Arnel; Bullock, William Bayer Aktiengesellschaft, Germany PATENT ASSIGNEE(S): PCT Int. Appl., 66 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE

```
WO 2000069842
                          A1
                                 20001123
                                             WO 2000-EP4010
20000504
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH,
         W:
CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU,
SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF,
BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     GB 2350109
                                 20001122
                          A1
                                             GB 1999-11452
19990517
     CA 2373666
                                             CA 2000-2373666
                          AA
                                 20001123
20000504
     EP 1187821
                                 20020320
                          A1
                                             EP 2000-931116
20000504
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
         R:
MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2002544270
                          T2
                                 20021224
                                             JP 2000-618259
20000504
     US 6610687
                                 20030826
                          В1
                                             US 2002-979371
20020225
                                             GB 1999-11452
PRIORITY APPLN. INFO.:
                                                                  A
19990517
                                             WO 2000-EP4010
                                                                  W
20000504
OTHER SOURCE(S): MARPAT 134:4852
     308285-79-2P 308285-80-5P 308285-81-6P
     308285-82-7P 308285-83-8P 308285-84-9P
     308285-85-0P 308285-86-1P 308285-87-2P
     308285-88-3P 308285-89-4P
     RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
     study, unclassified); SPN (Synthetic preparation); THU
(Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of benzofuranylsulfonates as antiinflammatory
agents)
```

RN 308285-79-2 CAPLUS
CN Urea,
[2-[(2,6-dimethyl-3-pyridinyl)carbonyl]-6-[(methylsulfonyl)oxy]-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 308285-80-5 CAPLUS
CN Benzenemethanesulfonic acid,
3-[(aminocarbonyl)amino]-2-[(2,6-dimethyl-3pyridinyl)carbonyl]-6-benzofuranyl ester (9CI) (CA INDEX NAME)

RN 308285-82-7 CAPLUS
CN Bicyclo[2.2.1]heptane-1-methanesulfonic acid, 7,7-dimethyl-2-oxo-,

3-[(aminocarbonyl)amino]-2-[(2,6-dimethyl-3-pyridinyl)carbonyl]-6-benzofuranyl ester (9CI) (CA INDEX NAME)

RN 308285-85-0 CAPLUS
CN 2-Naphthalenesulfonic acid, 5,6,7,8-tetrahydro-,
3-[(aminocarbonyl)amino]2-[(2,6-dimethyl-3-pyridinyl)carbonyl]-6-benzofuranyl ester
(9CI) (CA
INDEX NAME)

RN 308285-88-3 CAPLUS

CN Ethanesulfonic acid, 3-[(aminocarbonyl)amino]-2-[(2,6-dimethyl-3-pyridinyl)carbonyl]-6-benzofuranyl ester (9CI) (CA INDEX NAME)

RN 308285-89-4 CAPLUS

CN 2-Thiophenesulfonic acid, 5-chloro-,

3-[(aminocarbonyl)amino]-2-[(2,6-

dimethyl-3-pyridinyl)carbonyl]-6-benzofuranyl ester (9CI) (CA
INDEX NAME)

GI

$$R^{1}N$$
 $CO$ 
 $R^{4}$ 
 $DSO_{2}O$ 
 $NR^{2}R^{3}$ 

$$\begin{array}{c|c} & \text{HN-CO-NH}_2 \\ & &$$

AB The title compds. [I; A = H, acyl, alkoxycarbonyl, etc.; R1 = H, alkyl,

protecting group, etc.; R2, R3 = H, cycloalkyl, alkyl, etc.; NR2R3 = 5-7

membered saturated heterocycle optionally having a further O atom; R4 = aryl,

heterocyclyl; L = 0, S; D = 1,2,3,4-tetrahydronaphthalen-6-yl, quinolin-8-yl, aryl, etc.] which inhibit the production of superoxide by

polymorphonuclear leukocytes (PMN), and also inhibit  $\text{TNF}\alpha$  release

and potentiate IL-10 production in human monocytes, (biol.data such as IC50

against O2- formation and against PDE IV were given), were prepared E.g., a

general procedure for preparation of benzofuranylsulfonates I such as II was

presented.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE

FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L4 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:617912 CAPLUS

DOCUMENT NUMBER: 133:296336

TITLE: Synthesis and analgesic activity of some

substituted

1-benzofurans and 1-benzothiophenes

AUTHOR(S): Radl, Stanislav; Hezky, Petr; Konvicka,

Petr; Krejci,

Ivan

CORPORATE SOURCE: Research Institute of Pharmacy and

Biochemistry,

Prague, 130 60/3, Czech Rep.

SOURCE: Collection of Czechoslovak Chemical

Communications

(2000), 65(7), 1093-1108

CODEN: CCCCAK; ISSN: 0010-0765

PUBLISHER: Institute of Organic Chemistry and

Biochemistry,

Academy of Sciences of the Czech Republic

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:296336 IT 301538-67-0P 301538-69-2P 301538-70-5P

301538-71-6P 301538-72-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation)

(preparation, acid-base equilibrium consts., and analgesic activity of

substituted aminobenzofurans and -benzothiophenes)
RN 301538-67-0 CAPLUS
CN Methanone, (3-amino-2-benzofuranyl)-2-pyridinyl- (9CI) (CA INDEX NAME)

RN 301538-69-2 CAPLUS CN Methanone, (3-amino-2-benzofuranyl)-4-pyridinyl- (9CI) (CA INDEX NAME)

RN 301538-70-5 CAPLUS CN Methanone, (3-aminobenzo[b]thien-2-yl)-2-pyridinyl- (9CI) (CA INDEX NAME)

RN 301538-71-6 CAPLUS CN Methanone, (3-aminobenzo[b]thien-2-yl)-3-pyridinyl- (9CI) (CA INDEX NAME)

RN 301538-72-7 CAPLUS

CN Methanone, (3-aminobenzo[b]thien-2-yl)-4-pyridinyl- (9CI) (CA INDEX NAME)

IT 301538-68-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation, acid-base equilibrium consts., and analgesic activity of

substituted aminobenzofurans and -benzothiophenes)

RN 301538-68-1 CAPLUS

CN Methanone, (3-amino-2-benzofuranyl)-3-pyridinyl- (9CI) (CA INDEX NAME)

AB 2-Benzoyl- and 2-(pyridylcarbonyl)benzofuran-3-amines were prepared from

2-hydroxybenzonitrile and corresponding bromoethanones. 2-Benzoyl- and

2-(pyridylcarbonyl)benzothiophene-3-amines were prepared analogously from

2-mercaptobenzonitrile. 2-Benzoylbenzofuran-3-amine treated with acetic

anhydride or Et chloroformate provided the corresponding N-acetyl or

 ${\tt N-ethoxycarbonyl}$  derivs. These  ${\tt N-activated}$  compds. were alkylated with Et

bromoacetate to provide Et

N-acetyl-N-(2-benzoylbenzofuran-3-yl)glycinate

and Et N-(2-benzoylbenzofuran-3-yl)-N-ethoxycarbonylglycinate, resp.

Their mild hydrolysis gave the corresponding glycine derivs. Methylation

of Et N-(2-benzoylbenzofuran-3-yl)carbamate gave the corresponding N-Me

carbamate, which was hydrolyzed to

N-methyl-(2-benzoylbenzofuran-3-

yl)amine. 2-Benzoyl-7-methoxybenzofuran-3-amine and 2-(4-methoxybenzoyl)benzofuran-3-amine were demethylated with boron tribromide

to the corresponding hydroxy derivs.; their O-alkylation with Et bromoacetate gave Et

[(3-amino-2-benzoylbenzofuran-7-yl)oxy]acetate and Et

 $\{4-[(3-aminobenzofuran-2-yl)carbonyl]phenoxy\}acetate, resp. The mild$ 

hydrolysis of these esters provided corresponding acids. Similarly,

alkylation of the hydroxy derivs. with (dimethylamino) propyl chloride gave

corresponding (dimethylamino) propoxy derivs.

2-Hydroxybenzonitrile

treated with 2-bromopyridyl ethan-1-ones provided corresponding 2-(pyridylcarbonyl)benzofuran-3-amines.

2-(Pyridylcarbonyl)benzothiophene-

3-amines were prepared analogously from 2-mercaptobenzonitrile.

2-Benzoyl-3-(bromomethyl)benzofuran treated with dimethylamine,

1-methylpiperazine, and sodium 1-methylpiperidine-4-thiolate gave the

corresponding alkylation products. Several compds. were found to exhibit

considerable analgesic activity. However, their activity was not so

significant to justify their further development as analgesic agents.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES

AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L4 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1997:510149 CAPLUS

DOCUMENT NUMBER:

127:121637

TITLE:

Preparation of

heterocyclylcarbonyl-substituted

INVENTOR(S):

benzofuranylureas as antiinflammatories. Braeunlich, Gabriele; Es-sayed, Mazen;

Fischer,

Ruediger; Fugmann, Burkhardt; Henning, Rolf;

Sperzel,

Michael; Nielsch, Ulrich; Sturton, Graham

PATENT ASSIGNEE(S):

Bayer A.-G., Germany

SOURCE:

Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	PATENT NO.				KIND		DATE			APPLICATION NO.						
DATE																
			. – – –			_										
FD	77929	<b>3</b> 1			A1		1007	0618		ת ים	10	06	1100	16		
19961128		7 1			AI		1997	0010		LP	19	90	LISO	40		
	EP 779291						2001	1010								
			BE,	CH,			, ES,		FR.	GE	3, (	GR.	IE,	IT,	LI,	LU,
MC, NL,		•	,	,	•		•	•	•		•	_ ,		•	•	•
		PT,	SE													
	20670	9			E		2001	1015		ΑT	199	96-1	1190	46		
19961128																
	21619	955			Т3		2001	1216		ES	199	96-1	1190	46		
19961128		\ 1			<b></b>		0000	0000		73 M	10	0.6	1100	4.6		
PT 779291 19961128				T		2002	0228		ЪЛ.	19	96	1190	46			
		7.4.0			70		1000	0710			1 0	06 -	7 ( ) (	10		
19961204	59227	40			A		1999	0713		US	19	96-	/606	12		
	: 21922	) Ω 1			AA		1007	0612		$C$ $\Lambda$	100	06_1	2192	201		
19961206		.01			AA		1991	0012		CA	19.	90-2	2192	201		
	, 09202	2785			A2		1997	0805		JР	19	96-3	3403	88		
19961206							233 (			0.2						
PRIORITY APPLN. INFO.:										GB	199	95-2	2526	2		A
19951211																
OTHER SOURCE(S): MARPAT 127:12163									37							
IT 192	2574-4	12-8E	192	2574	-43-9	9P :	19257	4-44-	-0P							
192574-45-1P 192574-46-2P 192574-47-3P																

```
192574-48-4P 192574-49-5P 192574-50-8P
     192574-51-9P 192574-52-0P 192574-53-1P
     192574-54-2P 192574-55-3P 192574-56-4P
     192574-57-5P 192574-58-6P 192574-59-7P
     192574-60-0P 192574-61-1P 192574-63-3P
     192574-64-4P 192574-65-5P 192574-66-6P
     192574-67-7P 192574-68-8P 192574-69-9P
     192574-70-2P 192574-71-3P 192574-72-4P
     192574-73-5P 192574-74-6P 192574-75-7P
     192574-76-8P 192574-77-9P 192574-78-0P
     192574-79-1P 192574-80-4P 192574-81-5P
     192574-82-6P 192574-83-7P
     RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
     study, unclassified); SPN (Synthetic preparation); THU
(Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of heterocyclylcarbonyl-substituted
benzofuranylureas as
        antiinflammatories)
    192574-42-8 CAPLUS
RN
    Urea, [5-methoxy-2-(3-pyridinylcarbonyl)-3-benzofuranyl]- (9CI)
CN
(CA INDEX
     NAME)
```

```
RN 192574-43-9 CAPLUS
CN Urea, [6-methoxy-2-(4-pyridinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX NAME)
```

RN 192574-44-0 CAPLUS
CN Urea, [6-methoxy-2-(3-pyridinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX
NAME)

RN 192574-45-1 CAPLUS
CN Urea, [6-methoxy-2-(pyrazinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX
NAME)

RN 192574-46-2 CAPLUS CN Urea, [6-methoxy-2-(2-pyridinylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX

NAME)

RN 192574-47-3 CAPLUS
CN Urea, [5-methoxy-2-(4-pyridinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX NAME)

RN 192574-50-8 CAPLUS

CN Urea,

[5-chloro-6-methoxy-2-(3-pyridinylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 192574-51-9 CAPLUS

CN Pyridinium, 2-[[3-[(aminocarbonyl)amino]-6-methoxy-2-benzofuranyl]carbonyl]-1-methyl-, iodide (9CI) (CA INDEX NAME)

• I-

RN 192574-52-0 CAPLUS

CN Pyridinium, 4-[[3-[(aminocarbonyl)amino]-6-methoxy-2-benzofuranyl]carbonyl]-1-ethyl-, bromide (9CI) (CA INDEX NAME)

● Br-

RN 192574-53-1 CAPLUS

CN Pyridinium, 4-[[3-[(aminocarbonyl)amino]-6-methoxy-2-benzofuranyl]carbonyl]-1-methyl-, iodide (9CI) (CA INDEX NAME)

• I-

RN 192574-54-2 CAPLUS
CN Pyridinium, 3-[[3-[(aminocarbonyl)amino]-6-methoxy-2-benzofuranyl]carbonyl]-1-methyl-, iodide (9CI) (CA INDEX NAME)

• I-

RN 192574-55-3 CAPLUS
CN Urea, [6-methyl-2-(3-pyridinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX NAME)

RN 192574-56-4 CAPLUS
CN Urea, [6-methyl-2-(4-pyridinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX
NAME)

MeO 
$$CH_2-C-OMe$$
  $NH-C-NH_2$ 

• Br-

RN 192574-58-6 CAPLUS

CN Pyridinium, 3-[[3-[(aminocarbonyl)amino]-6-methoxy-2-benzofuranyl]carbonyl]-1-ethyl-, iodide (9CI) (CA INDEX NAME)

• I-

RN 192574-59-7 CAPLUS
CN Urea, [6-methoxy-2-(2-thiazolylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX NAME)

RN 192574-60-0 CAPLUS CN Urea, [5-methoxy-2-(3-thienylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 192574-61-1 CAPLUS
CN Urea,

RN 192574-63-3 CAPLUS

CN Urea,

[2-(3-pyridinylcarbonyl)-6-(trifluoromethyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 192574-65-5 CAPLUS CN Urea, [5-fluoro-6-nitro-2-(3-pyridinylcarbonyl)-3-benzofuranyl]-(9CI) (CA INDEX NAME)

RN 192574-66-6 CAPLUS

CN Carbamic acid, [[[5-methoxy-2-(2-pyridinylcarbonyl)-3-benzofuranyl]amino]thioxomethyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 192574-67-7 CAPLUS

CN Carbamic acid, [[[6-methoxy-2-(2-pyridinylcarbonyl)-3-benzofuranyl]amino]thioxomethyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 192574-68-8 CAPLUS

CN Urea,

[2-[(2,6-dimethyl-3-pyridinyl)carbonyl]-6-methoxy-3-benzofuranyl](9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} \\ \text{O} \\ \text{C} \\ \text{NH} \\ \text{C-NH2} \\ \text{O} \\ \end{array}$$

RN 192574-69-9 CAPLUS

CN Urea,

[2-[(5-chloro-2-thienyl)carbonyl]-6-methoxy-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 192574-70-2 CAPLUS

CN Pyridinium,

1-[(acetyloxy)methyl]-3-[[3-[(aminocarbonyl)amino]-6-methoxy-2-

benzofuranyl]carbonyl]-, chloride (9CI) (CA INDEX NAME)

● Cl-

RN 192574-71-3 CAPLUS

CN Urea,

[2-[(2,5-dichloro-3-thienyl)carbonyl]-6-methoxy-3-benzofuranyl](9CI) (CA INDEX NAME)

RN 192574-72-4 CAPLUS

CN Urea,

RN 192574-73-5 CAPLUS

CN Urea,

[2-[(5-bromo-2-thienyl)carbonyl]-6-methoxy-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 192574-74-6 CAPLUS

CN Urea,

[2-[(3-bromo-2-thienyl)carbonyl]-6-methoxy-3-benzofuranyl]- (9CI) (CA INDEX NAME)

$$S$$
 $O = C$ 
 $MeO$ 
 $O$ 
 $NH-C-NH2$ 

RN 192574-75-7 CAPLUS

CN Urea, [6-cyano-2-(2-thienylcarbonyl)-3-benzofuranyl]- (9CI) (CA
INDEX
NAME)

RN 192574-76-8 CAPLUS CN Urea, [2-[(5-chloro-2-thienyl)carbonyl]-6-nitro-3-benzofuranyl]-(9CI) (CA INDEX NAME)

RN 192574-77-9 CAPLUS CN Urea, [6-nitro-2-(2-thienylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 192574-78-0 CAPLUS CN Urea, [2-[(3,5-dichloro-2-pyridinyl)carbonyl]-6-methoxy-3-benzofuranyl]-(9CI) (CA INDEX NAME)

RN 192574-79-1 CAPLUS

CN Urea,

[2-[(2,5-dimethyl-3-thienyl)carbonyl]-6-methoxy-3-benzofuranyl]-(9CI) (CA INDEX NAME)

RN 192574-80-4 CAPLUS

CN Urea,

$$S$$
 $CN$ 
 $MeO$ 
 $O$ 
 $O$ 
 $NH-C-NH2$ 

RN 192574-81-5 CAPLUS

CN Urea, [6-nitro-2-[(5-nitro-3-thienyl)carbonyl]-3-benzofuranyl]- (9CI) (CA

INDEX NAME)

$$O_2N$$
 $O_1$ 
 $O_2$ 
 $O_3$ 
 $O_4$ 
 $O_5$ 
 $O_5$ 
 $O_5$ 
 $O_5$ 
 $O_7$ 
 $O_8$ 
 $O_9$ 
 $O_9$ 

RN 192574-82-6 CAPLUS CN Urea, [2-[(5-chloro-2-thienyl)carbonyl]-6-cyano-3-benzofuranyl]-(9CI) (CA INDEX NAME)

NC O C C C C

RN 192574-83-7 CAPLUS

CN Urea, [2-[(2,5-dichloro-3-thienyl)carbonyl]-6-(2-propenyloxy)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

NH-C-NH<sub>2</sub>

IT 192574-84-8P 192574-85-9P 192574-86-0P 192574-87-1P 192574-88-2P 192574-89-3P 192574-90-6P 192574-91-7P 192574-92-8P 192574-93-9P 192574-94-0P 192574-95-1P 192574-96-2P 192574-97-3P 192574-98-4P 192574-99-5P 192575-00-1P 192575-01-2P 192575-02-3P 192575-03-4P 192575-04-5P 192575-05-6P 192575-06-7P 192575-07-8P

```
10/501,689
```

```
192575-08-9P 192575-09-0P 192575-10-3P
     192575-11-4P 192575-12-5P 192575-13-6P
     192575-14-7P 192575-15-8P 192575-16-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT
     (Reactant or reagent)
        (preparation of heterocyclylcarbonyl-substituted
benzofuranylureas as
        antiinflammatories)
     192574-84-8 CAPLUS
RN
     Methanone, (3-amino-5-methoxy-2-benzofuranyl)-3-pyridinyl- (9CI)
CN
 (CA
     INDEX NAME)
MeO
                 NH<sub>2</sub>
     192574-85-9
                   CAPLUS
RN
CN
     Methanone, (3-amino-6-methoxy-2-benzofuranyl)-4-pyridinyl- (9CI)
 (CA
     INDEX NAME)
MeO.
                 NH<sub>2</sub>
RN
     192574-86-0
                   CAPLUS
     Methanone, (3-amino-6-methoxy-2-benzofuranyl)-3-pyridinyl- (9CI)
CN
 (CA
     INDEX NAME)
```

RN 192574-87-1 CAPLUS
CN Methanone, (3-amino-6-methoxy-2-benzofuranyl)pyrazinyl- (9CI)
(CA INDEX
NAME)

RN 192574-89-3 CAPLUS CN Methanone, (3-amino-5-chloro-6-methoxy-2-benzofuranyl)-3-pyridinyl- (9CI) (CA INDEX NAME)

RN 192574-90-6 CAPLUS

CN Methanone,

(3-amino-5-chloro-6-methoxy-2-benzofuranyl)-4-pyridinyl- (9CI) (CA INDEX NAME)

RN 192574-91-7 CAPLUS

CN Methanone, (3-amino-5-methoxy-2-benzofuranyl)-4-pyridinyl- (9CI) (CA

INDEX NAME)

$$_{\rm MeO}$$

RN 192574-92-8 CAPLUS

CN Methanone, (3-amino-6-methoxy-2-benzofuranyl)-2-thienyl- (9CI)

(CA INDEX NAME)

RN 192574-93-9 CAPLUS
CN Methanone, (3-amino-5-methoxy-2-benzofuranyl)-2-pyridinyl- (9CI)
(CA
INDEX NAME)

RN 192574-94-0 CAPLUS
CN Methanone, (3-amino-6-methyl-2-benzofuranyl)-3-pyridinyl- (9CI)
(CA INDEX
NAME)

RN 192574-95-1 CAPLUS
CN Methanone, (3-amino-6-methyl-2-benzofuranyl)-4-pyridinyl- (9CI)
(CA INDEX
NAME)

RN 192574-96-2 CAPLUS
CN Methanone, (3-amino-6-methoxy-2-benzofuranyl)-2-thiazolyl- (9CI)
(CA
INDEX NAME)

RN 192574-97-3 CAPLUS
CN Methanone, (3-amino-5-methoxy-2-benzofuranyl)-3-thienyl- (9CI)
(CA INDEX NAME)

RN 192574-99-5 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl) (5-methyl-2-furanyl) - (9CI) (CA INDEX NAME)

RN 192575-00-1 CAPLUS

CN Methanone,

[3-amino-6-(trifluoromethyl)-2-benzofuranyl]-3-pyridinyl- (9CI) (CA INDEX NAME)

$$F_3C$$
 $O$ 
 $C$ 
 $N$ 
 $NH_2$ 

RN 192575-01-2 CAPLUS

CN Methanone,

(3-amino-5-fluoro-6-nitro-2-benzofuranyl)-3-pyridinyl- (9CI) (CA INDEX NAME)

$$O_2N$$
 $O_1$ 
 $O_2N$ 
 $O_1$ 
 $O_2N$ 
 $O_1$ 
 $O_2N$ 
 $O_1$ 
 $O_2N$ 
 $O_1$ 
 $O_2N$ 
 $O_2N$ 
 $O_1$ 
 $O_2N$ 
 $O_2N$ 
 $O_1$ 
 $O_2N$ 
 $O_2N$ 
 $O_1$ 
 $O_2N$ 
 $O$ 

RN 192575-02-3 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)(5-chloro-2-thienyl)- (9CI) (CA INDEX NAME)

RN 192575-03-4 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)(2,6-dimethyl-3-pyridinyl)-(9CI) (CA INDEX NAME)

MeO 
$$C$$
  $N$   $Me$   $NH_2$   $Me$ 

RN 192575-04-5 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)(2,5-dichloro-3-thienyl)(9CI) (CA INDEX NAME)

RN 192575-05-6 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)(3,4-dibromo-2-thienyl)-(9CI) (CA INDEX NAME)

RN 192575-06-7 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)(3-bromo-2-thienyl)- (9CI) (CA INDEX NAME)

RN 192575-07-8 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)(5-bromo-2-thienyl)- (9CI) (CA INDEX NAME)

RN 192575-08-9 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)[2,2'-bipyridin]-6-yl- (9CI) (CA INDEX NAME)

RN 192575-09-0 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)(2-chloro-4-pyridinyl)- (9CI) (CA INDEX NAME)

RN 192575-10-3 CAPLUS

CN 6-Benzofurancarbonitrile, 3-amino-2-(2-thienylcarbonyl)- (9CI) (CA INDEX

NAME)

RN 192575-11-4 CAPLUS CN Methanone, (3-amino-6-nitro-2-benzofuranyl) (5-chloro-2-thienyl) - (9CI) (CA INDEX NAME)

$$O_2N$$
 $O$ 
 $C$ 
 $S$ 
 $C1$ 
 $NH_2$ 

$$O_2N$$
 $O_1$ 
 $O_2N$ 
 $O_3$ 
 $O_4$ 
 $O_5$ 
 $O_4$ 
 $O_5$ 
 $O_4$ 
 $O_5$ 
 $O_5$ 
 $O_7$ 
 $O_8$ 
 $O_$ 

RN 192575-13-6 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl) (2,5-dimethyl-3-thienyl) - (9CI) (CA INDEX NAME)

MeO 
$$C$$
  $NH_2$   $Me$ 

RN 192575-14-7 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl)(5-methyl-3-thienyl)- (9CI) (CA INDEX NAME)

RN 192575-15-8 CAPLUS

CN 2-Thiophenecarbonitrile,

4-[(3-amino-6-methoxy-2-benzofuranyl)carbonyl](9CI) (CA INDEX NAME)

RN 192575-16-9 CAPLUS

CN Methanone,

(3-amino-6-methoxy-2-benzofuranyl) (3,5-dichloro-2-pyridinyl) - (9CI) (CA INDEX NAME)

MeO 
$$C1$$
  $C1$   $C1$   $C1$   $C1$   $C1$   $C1$ 

GI

Title compds. [I; A, D = H, acyl, alkoxycarbonyl, halo, CO2H, AB cyano, NO2,

CF3, OCF3, etc.; R1 = H, alkyl, protecting group, acyl; R2, R3 = Η,

cycloalkyl, alkyl, alkoxycarbonyl, alkenyl, (substituted) PhCO, aryl;

R2R3N = heterocyclyl; R4 = (unsatd.) (substituted) (benzanellated)

heterocyclyl; L = 0, S], were prepared Thus, (3-amino-5-methoxybenzofuran-2-

Ι

yl)piperidin-3-ylmethanone (preparation given) in CH2Cl2 was treated with

chlorosulfonyl isocyanate at 0° followed by stirring for 4 h at room temperature to give 17%

[5-methoxy-2-(pyridin-3-carbonyl)benzofuran-3-

yl]urea. I inhibited FMLP-stimulated production of superoxide radical anions

with IC50 =  $0.07-10 \mu M$ .

ANSWER 9 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:175080 CAPLUS

DOCUMENT NUMBER: 126:171488

TITLE: Preparation of benzofuro[3,2-b]pyridines as

endothelin

receptor antagonists INVENTOR(S): Osswald, Mathias; Dorsch, Dieter; Mederski, Werner; Wilm, Claudia; Schmitges, Claus; Christadler, Maria Merck Patent Gmbh, Germany PATENT ASSIGNEE(S): SOURCE: Eur. Pat. Appl., 70 pp. CODEN: EPXXDW DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. DATE KIND APPLICATION NO. DATE EP 755934 A1 19970129 EP 1996-111677 19960719 R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE DE 1995-19527568 19970130 DE 19527568 A1 19950728 19970206 AU 1996-60607 AU 9660607 A1 19960719 CA 2182156 19970129 CA 1996-2182156 AA19960726 NO 9603131 NO 1996-3131 19970129 A 19960726 19970210 JP 09040678 **A2** JP 1996-214052 19960726 ZA 9606399 19970219 ZA 1996-6399 Α 19960726 US 5700807 US 1996-687922 19971223 A 19960726 BR 1996-3164 BR 9603164 Α 19980505 19960726 PRIORITY APPLN. INFO.: DE 1995-19527568 A 19950728 MARPAT 126:171488 OTHER SOURCE(S): 187154-67-2P IT RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of benzofuro[3,2-b]pyridines as endothelin receptor

antagonists)

187154-67-2 CAPLUS RN

Methanone, CN

(3-amino-2-benzofuranyl) (2,3-dihydro-1,4-benzodioxin-6-yl)(9CI) (CA INDEX NAME)

GI·

$$\begin{array}{c|c}
R3 & X & R2 \\
\hline
 R4 & X & Y & Z
\end{array}$$

COOEt OMe

III

Ι

Page 73

```
The title compds. [I; R1 = Ar (wherein Ar = (un) substituted Ph,
AΒ
naphthyl,
     etc.); R2 = COOH, COOC1-6 alkyl, CN, etc.; R3-R5 = halo, NO2,
CN, etc.; X
     = O, S; Y-Z = NR7C(O), N:C(OR7), N:CR8 (wherein R7 = CH2Ar,
CH2CH2Ar,
     etc.; R8 = Ar, ArO)], useful for the prophylaxis and/or therapy
of
     cardiac, circulatory and vascular illnesses, especially
hypertension and cardiac
     insufficiency, were prepared and formulated. Thus, reaction of
50% solution of
     2-methoxybenzyl chloride in CH2Cl2 with Et
4-(1,4-benzodioxan-6-yl)-1,2-
     dihydro-2-oxobenzofuro[3,2-b]pyridine-3-carboxylate in DMF in
the presence
     of Cs2CO3 afforded II and III. Compds. I are effective at
0.02 - 10
     mg/kg/day.
     ANSWER 10 OF 12
                      CAPLUS COPYRIGHT 2006 ACS on STN
L4
                         1995:265421 CAPLUS
ACCESSION NUMBER:
                         122:81257
DOCUMENT NUMBER:
                         Synthesis and reactions of 2-substituted
TITLE:
                         4H-benzofuro[3,2-d]-m-oxazin-4-ones
                         Harwalkar, G. S.; Agasimundin, Y. S.
AUTHOR(S):
                         Department Chemistry, Gulbarga University,
CORPORATE SOURCE:
Gulbarga,
                         585 106, India
                         Indian Journal of Heterocyclic Chemistry
SOURCE:
(1994), 3(4),
             247-52
                         CODEN: IJCHEI; ISSN: 0971-1627
                         Journal
DOCUMENT TYPE:
                         English
LANGUAGE:
     160461-38-1P 160461-39-2P 160461-40-5P
IT
     160461-41-6P 160461-42-7P 160461-43-8P
     160461-44-9P 160461-45-0P 160461-46-1P
     160461-47-2P 160461-48-3P 160461-49-4P
     160461-50-7P 160461-51-8P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
     160461-38-1 CAPLUS
RN
     Acetamide, N-[2-(1-piperidinylcarbonyl)-3-benzofuranyl]- (9CI)
CN
(CA INDEX
     NAME)
```

RN 160461-39-2 CAPLUS
CN Propanamide, N-[2-(1-piperidinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX NAME)

RN 160461-40-5 CAPLUS
CN Benzeneacetamide, N-[2-(1-piperidinylcarbonyl)-3-benzofuranyl](9CI) (CA
INDEX NAME)

RN 160461-41-6 CAPLUS
CN Benzamide, N-[2-(1-piperidinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX
NAME)

RN 160461-42-7 CAPLUS

CN Benzamide,

4-methyl-N-[2-(1-piperidinylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 160461-43-8 CAPLUS

CN Benzamide,

4-methoxy-N-[2-(1-piperidinylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 160461-44-9 CAPLUS

CN Benzamide,

4-chloro-N-[2-(1-piperidinylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 160461-46-1 CAPLUS
CN Propanamide, N-[2-(4-morpholinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX NAME)

RN 160461-47-2 CAPLUS CN Benzeneacetamide, N-[2-(4-morpholinylcarbonyl)-3-benzofuranyl]-(9CI) (CA

INDEX NAME)

RN 160461-48-3 CAPLUS
CN Benzamide, N-[2-(4-morpholinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX NAME)

RN 160461-49-4 CAPLUS
CN Benzamide,
4-methyl-N-[2-(4-morpholinylcarbonyl)-3-benzofuranyl]- (9CI)
(CA INDEX NAME)

RN 160461-50-7 CAPLUS

CN Benzamide,

4-methoxy-N-[2-(4-morpholinylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

RN 160461-51-8 CAPLUS

CN Benzamide,

4-chloro-N-[2-(4-morpholinylcarbonyl)-3-benzofuranyl]- (9CI) (CA INDEX NAME)

GI

$$\bigcap_{O} \bigcap_{O} \bigcap_{O$$

AB Title compds. I [R = Me, Et, CH2Ph, (un)substituted Ph] were prepared, and

their reactions with aliphatic and aromatic amines were investigated. The

selectivity of the reaction pathway was shown to depend on steric factors.

L4 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:591598 CAPLUS

Ι

DOCUMENT NUMBER: 101:191598

TITLE: The conversions of isothiazolium salts into

thiophenecarboxylic ester derivatives

AUTHOR(S): McKinnon, David M.; Duncan, K. Ann; Millar,

Lesley M.

CORPORATE SOURCE: Dep. Chem., Univ. Manitoba, Winnipeg, MB,

R3T 2N2,

Can.

SOURCE: Canadian Journal of Chemistry (1984), 62(8),

1580 - 4

CODEN: CJCHAG; ISSN: 0008-4042

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 101:191598

IT 92802-05-6P

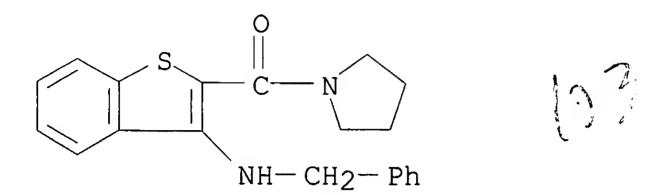
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 92802-05-6 CAPLUS

CN Pyrrolidine,

1-[[3-[(phenylmethyl)amino]benzo[b]thien-2-yl]carbonyl](9CI) (CA INDEX NAME)



GI

$$R^2$$
  $R^1$   $R^3$   $R^3$   $R^4$   $R^4$ 

AB Several 3-aminothiophene-2-carboxylic ester derivs. were prepared by

reaction of EtO2CCH2CO2K or Me2S:CHCO2Et with isothiazolium perchlorates I  $\,$ 

(e.g., R = R3 = Ph, R1 = R2 = H). In the latter case deaminated products

were also isolated. These products were consistent with initial nucleophilic attack on the S atom of the isothiazolium salt. In one case

a pyrrole derivative formed by a novel rearrangement of an intermediate

aziridine derivative Some further derivs. of 3-(benzylamino)benzo[b]thiophene were described.

L4 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1973:71816 CAPLUS

DOCUMENT NUMBER: 78:71816

TITLE: New synthesis of

3-amino-2-cylbenzo[b]thiophenes

AUTHOR(S): Boeshagen, Horst; Geiger, Walter

CORPORATE SOURCE: Forschungslab., Bayer A. G.,

Wuppertal-Elberfeld, Fed.

Rep. Ger.

SOURCE: Justus Liebigs Annalen der Chemie (1972),

764, 58-68

CODEN: JLACBF; ISSN: 0075-4617

DOCUMENT TYPE:

LANGUAGE:

German

IT 40239-88-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 40239-88-1 CAPLUS

CN Methanone, [3-(ethylamino)benzo[b]thien-2-y1]-2-thienyl- (9CI)

(CA INDEX

 $S \longrightarrow C$ 

NHEt

NAME)

GI For diagram(s), see printed CA Issue.

AB Thirteen title compds. (I, R = Me, Et, Ph, C6H4Me-o, C6H4F-p, C6H4Cl-m, or

CH2CH:CH2; R1 = Me, 2-thienyl, Ph, C6H4NO2-m, CMe3, or CHMe2; R2 = H or

Cl) were prepared in 60-80% yield by reaction of the benzisothiazole (II)

with MeCOR1. I were desulfurized with Raney Ni to give cis-s-cis-p-R2C6H4C(NHR):CHCOR1. Reaction of I (R = Ph, R1 = Me, R2 = H)

with Ac2O, H2NNHSO2Ph, or H2NNH2 gave the N-acetyl derivative of I, the

phenylsulfonylhydrazone of I, or the azine of I, resp. Oxidation of I with

perphthalic acid gave the S,S-dioxides.

=> log yCOST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 61.78 228.93 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION -9.00 -9.00 CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 14:47:26 ON 10 AUG 2006